

ABSTRACT OF THE DISCLOSURE

A fuel-fired heating appliance has multiple premix type fuel burners horizontally disposed in a row in its combustion chamber and operable in a staged manner. The burners are upwardly spaced apart from a rigid
5 fiberboard insulation panel structure extending along the bottom interior side of the combustion chamber. Sandwiched between and contacting the bottom sides of the burners and the top side of the fiberboard panel is a blanket of resilient ceramic fiber insulation material which functions to (1) prevent uncombusted fuel from firing burners from being circulated
10 under non-firing burners, (2) increase the operating temperatures of bottom sides of the burners during firing thereof to lessen thermal stresses in the firing burners, (3) resiliently permit differential thermal expansion of the burners, and (4) reduce harmonic resonance of the burners, and associated operational noise of the appliance, during firing of
15 the burners.